

July 2015

Edwards County

Estimated Economic Impact of Agriculture, Food, and Food Processing Sectors

A total of 12 agriculture, food, and food processing sectors were analyzed to determine their overall contribution to the Edwards County economy. These 12 sectors have a total direct output of approximately \$230 million and support 407.7 jobs in Edwards County. Running the model for all 12 sectors simultaneously produces the following results:

Agriculture Contribution in Edwards County

				% of Gross		% of Gross
		% of Total	Total	Regional		Regional
Impact Type ²	Employment	Employment	Value Added ³	Product ⁴	Output ⁵	Product
Direct Effect	407.7	22%	\$37,175,579	32%	\$230,414,921	198%
Indirect Effect	228.3	12%	\$18,020,359	15%	\$31,840,557	27%
Induced Effect	83.2	4%	\$5,252,010	5%	\$9,704,345	8%
Total Effect	719.2	38%	\$60,447,948	52%	\$271,959,823	234%

As shown in the above table, agriculture, food, and food processing supports 719.2 jobs, or 38% of the entire workforce in the county. These industries provide a total economic contribution of approximately \$272 million, roughly 234% of Gross Region Product (GRP). As noted below in the calculation of Gross Regional Product, imports and institutional sales are subtracted. Therefore, counties that import a relatively large amount of goods and services will have a reduced GRP which may lead to agricultural output being greater than GRP.

Another metric used to calculate the importance of sectors in an economy is their value added as a percentage of GRP. Total value added by the 12 agriculture, food, and food processing sectors is approximately \$60 million, or 52% of the GRP. This indicates that personal income, business income, and taxes generated by these sectors account for 52% of the total economy.

The following tables document the overall summary numbers of the model, top industries affected by employment and output, and a listing of all industries that were analyzed.

¹ Article on building a contribution analysis in IMPLAN that avoids double counting: https://implan.com/index.php?option=com content&view=category&id=19

² Direct, indirect, and induced effects sum together to estimate the total economic contribution in the state. **Direct effects** capture the contribution from agricultural and food products. **Indirect effects** capture the economic benefit from farms and agricultural businesses purchasing inputs from supporting industries within the state. **Induced effects** capture the benefits created when employees of farms, agricultural businesses, and the supporting industries spend their wages on goods and services within the state.

³ Value Added = Labor Income + Indirect Business Taxes + Other Property Type Income

⁴ GRP = Final Demand of Households + Governments Expenditures + Capital + Exports - Imports - Institutional Sales

⁵ Output = Intermediate Inputs + Value Added

In the top ten by employment, Grain farming is the top employer in the agriculture industry with 229.2 employees. This table also shows the amount of jobs that are created by the agriculture industry in Edwards County.

Top 10 Industries Affected by Employment

	Total	Total
Sector Description:	Employment	Output
Grain farming	229.2	\$107,332,581
Beef cattle ranching and farming, including feedlots and dual-purpose ranching		,
and farming	90.0	\$31,192,464
Wholesale trade	87.3	\$18,139,930
Support activities for agriculture and forestry	55.6	\$3,193,990
All other crop farming	44.9	\$7,613,482
Accounting, tax preparation, bookkeeping, and payroll services	15.7	\$689,524
Dairy cattle and milk production	12.2	\$3,030,254
Monetary authorities and depository credit intermediation	11.8	\$1,817,253
Securities and commodity contracts intermediation and brokerage	10.4	\$452,172
Soybean and other oilseed processing	10.2	\$53,174,040

The Grain farming industry directly contributes approximately \$107 million to Edwards County's economy. This table also shows how much revenue is generated in other industries by having a strong agriculture industry.

Top 10 Industries Affected by Output

	Total	Total
Sector Description:	Employment	Output
Grain farming	229.2	\$107,332,581
Soybean and other oilseed processing	10.2	\$53,174,040
Beef cattle ranching and farming, including feedlots and dual-purpose ranching		
and farming	90.0	\$31,192,464
Oilseed farming	8.0	\$23,123,665
Wholesale trade	87.3	\$18,139,930
All other crop farming	44.9	\$7,613,482
Animal, except poultry, slaughtering	7.1	\$4,214,764
Support activities for agriculture and forestry	55.6	\$3,193,990
Dairy cattle and milk production	12.2	\$3,030,254
Owner-occupied dwellings	0.0	\$2,554,926

Below is a summary of all agriculture data with employment levels and output level. These values can tell how many jobs are represented by each agriculture sector and the output they contributed to Edwards County's economy.

Sector Description:	Employment	Output
Oilseed farming	8.0	\$23,123,665
Grain farming	229.2	\$107,332,581
Vegetable and melon farming		\$109,123
Greenhouse, nursery, and floriculture production		\$263,039
All other crop farming	44.9	\$7,613,482
Beef cattle ranching and farming, including feedlots and dual-purpose ranching		" "
and farming	90.0	\$31,192,464
Dairy cattle and milk production	12.2	\$3,030,254
Animal production, except cattle and poultry and eggs	0.2	\$20,486
Soybean and other oilseed processing.	10.2	\$53,174,040
Animal, except poultry, slaughtering		\$4,214,764
Bread and bakery product, except frozen, manufacturing		\$174,104
Landscape and horticultural services		\$166,919

All 105 counties in Kansas have IMPLAN models with an agriculture contribution summary. These values do not factor in the retail environment of food sales. Food retail is important, but in order to provide the most accurate picture of what production agricultural and processing contributes to Kansas, the retail sector was omitted.